



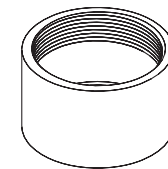
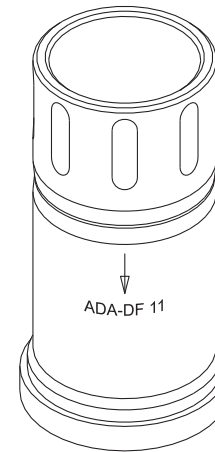
a xylem brand



a xylem brand

Installation instructions

ADA-DF 11



Fixing ring
for TFK / SensoLyt

Adapter

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Yellow Springs, Ohio 45387 USA
+1 937-767-7241
800-765-4974 (US)
FAX (937) 767-1058
Email: environmental@ysi.com
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Suitability

VisoTurb 700 IQ	TriOxmatic 700 IQ	TetraCon 700 IQ
ViSolid 700 IQ	TriOxmatic 701 IQ	TFK 700 IQ
	TriOxmatic 702 IQ	Sensolyt 700 IQ

Important information for using this adapter together with a Sensolyt armature:

Observe the following note when you want to use a Sensolyt measuring armature with the aid of the adapter:



Warning
 For safety reasons, use only electrodes especially specified for high pressure and temperature loads (for example pH combination electrode Sensolyt SEA-HP, order no. 109 118). For more information, refer to the YSI catalog or the Internet. YSI assumes no liability for damages caused by using different electrodes.



Note

Further instructions for installation are given in the mounting instructions of the weld-in socket.

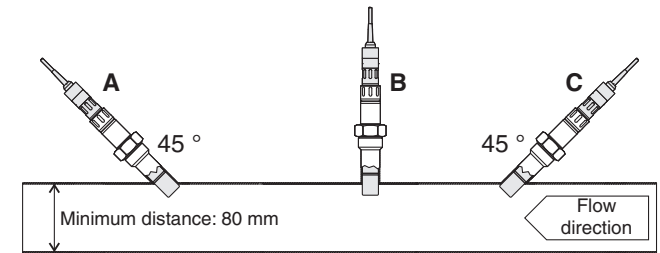
Technical data

Operating pressure	Pressure difference $P_{inner} - P_{outer}$	Max. $+10^6$ Pa (10 bar overpressure)
	Operating temperature	0 ... +60 °C, frost-free
Dimensions	Overall length in screwed condition	approx. 140 mm
	Flange diameter	56 mm
Materials	Adapter	Stainless steel 1.4571
	Fixing ring	POM

Installation recommendations

General installation recommendations

Basic types of installation



The optimum installation location must be individually determined for the type of sensor and the application.

Influential factors

- Sufficient flow of the sensor element **Good A, B**
- Burdening of the measuring medium with long fibers - avoidance of them getting caught on the sensor (rake effect) **C**
- Burdening of the sample with small stones and abrasive particles - avoidance of any damage to the sensor element **C**
- Avoidance of malfunctions of the optical measurement (turbidity/total suspended solids) by captured air bubbles and particles **A, B**
- Avoidance of malfunctions of the optical measurement (turbidity/total suspended solids) by wall surfaces **A, C**

Under certain circumstances, the individual factors must be weighed up against one another. The table on the following pages contains recommendations and the special characteristics of the individual sensors.

Overview of the recommended installation locations



Note
Always follow the INSTALLATION chapter of the respective sensor operating manual.

Sensor type	Installation location (see diagram on page 3)	Advantages (+) / Disadvantages (-)	Conclusion / Comments
TriOxmatic 700 IQ, TriOxmatic 701 IQ, TriOxmatic 702 IQ	B	+ Good flow + Low susceptibility to contamination + Low risk of membrane damage	
TetraCon 700 IQ	B	+ Good flow + Low susceptibility to contamination	Check and adjust cell constants after installation (see sensor operating manual)
Sensolyt 700 IQ	C	+ Good flow + Low susceptibility to contamination - Danger of small stones damaging the electrode	The enclosed fixing ring instead of the protective hood improves the incident flow. <u>Attention</u> : It is no protection against small stones! The best incident flow is achieved when the diaphragm points against the flow direction.
TFK 700 IQ	C	+ Good flow + Low susceptibility to contamination	The enclosed fixing ring instead of the protective hood improves the incident flow.



Installing the sensor (example)

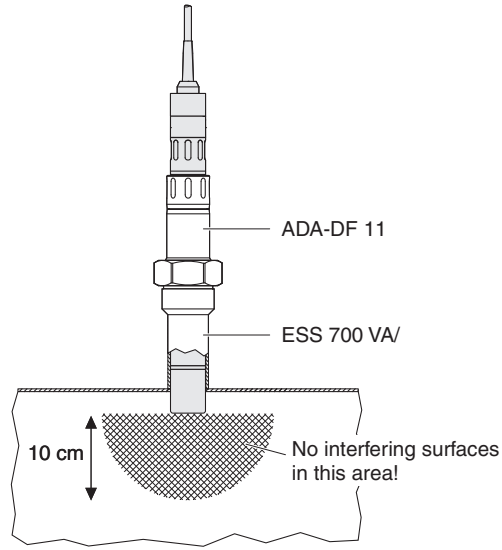


Installation

Note
Please also observe the INSTALLATION chapter of the sensor operating manual as well as the operating manual of the welding socket.

- 1 Assemble both halves of the retaining ring (1) and the thin O-ring (2).
- 2 Push the retaining ring over the sensor and make it lock in place in the groove (3).
- 3 Insert the sensor with the retaining ring in the receiving tube (4) up to the stop. If necessary, align the arrow marks on the sensor and receiving tube (e.g. at Visolid 700 IQ).
- 4 Screw together the ring (5) and the receiving tube.

Other containers



- Installation angle 90 °
- The distance between the mounting opening and the wall opposite should be as great as possible.
- The area in front of the measuring windows (hatched area in the drawing) has to be free of interfering surfaces.

Overview of the recommended installation locations (continued)

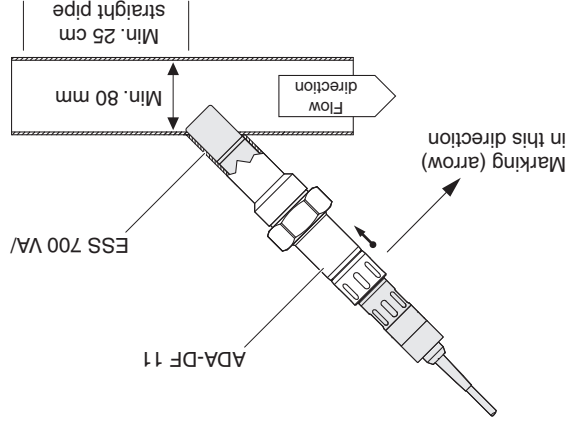
Sensor type	Installation location (see diagram on page 3)	Advantages (+) / Disadvantages (-)	Conclusion / Comments
VisoTurb 700 IQ, ViSolid 700 IQ Note: Please note the special installation recommendations in the following section.	A	+ Optimum flow of the sapphire disc so there is no capture of air bubbles or large particles in front of the sensor - Susceptible to fibers getting caught - Risk of damage from stones and abrasive particles	Optimum installation location for measuring media without contamination from fibers, stones, or abrasive particles.
	C	+ No risk of contamination by long fibers + Low risk of damage from stones and abrasive particles - Susceptible to the capture of air bubbles or large particles in front of the sapphire disc (turbulence effect)	In the case of contamination by fibers, less prone to contamination than A.
	B	+ Good flow of the sapphire disc, so there is no interference from air bubbles or large particles in front of the sensor - Risk of light reflections in narrow containers	Good possibility in sufficiently large containers or high values of turbidity/total suspended solids.



Note

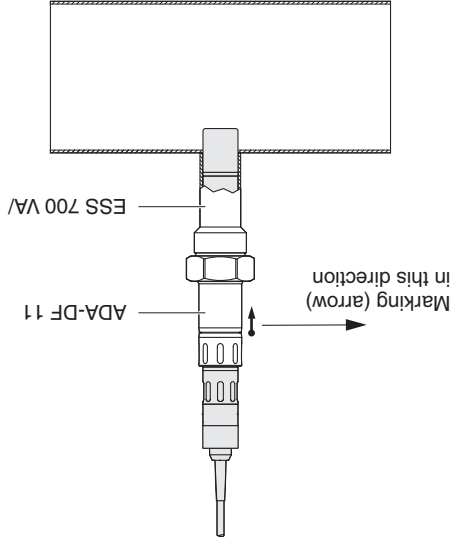
Please also observe the general basic information in the INSTALLATION chapter of the sensor operating manual. There you will find important notes on optimizing the installation.

45 ° pipe installation



- Pipe diameter at the installation location of at least DN 80. The pipe should be straight and not tapered for a length of at least 25 cm in the direction of observation. Angled or tapered pipes can cause interference effects in the case of low turbidity.
- The front part of the sensor is pitched towards the flow. **Exception:** If there are high quantities of foreign bodies with fibrous or large surfaces, as for example hairs, strings or leaves, it may be of advantage to incline the sensor in the direction of the flow so that the sapphire disc does not face the flow.
- The marking on the sensor shaft points towards the pipeline.

90 ° pipe installation



Note

The 90 ° pipe installation is only suitable for large pipe diameters and high turbidity/total suspended solids values respectively. For other cases, the 45 ° installation should be preferred.

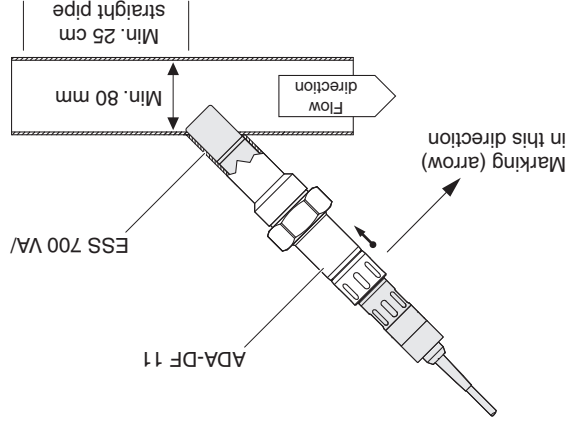
- For installation, select a location with a pipe diameter as big as possible.
- Rotate the sensor so that the marking on the shaft (arrow symbol) points in the direction of the pipe axis.



Note

Please also observe the general basic information in the INSTALLATION chapter of the sensor operating manual. There you will find important notes on optimizing the installation.

45 ° pipe installation



- Pipe diameter at the installation location of at least DN 80. The pipe should be straight and not tapered for a length of at least 25 cm in the direction of observation. Angled or tapered pipes can cause interference effects in the case of low turbidity.
- The front part of the sensor is pitched towards the flow. **Exception:** If there are high quantities of foreign bodies with fibrous or large surfaces, as for example hairs, strings or leaves, it may be of advantage to incline the sensor in the direction of the flow so that the sapphire disc does not face the flow.
- The marking on the sensor shaft points towards the pipeline.